

U.S. PTO Customer No. 25280

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REMARKSThe Pending Claims

Claim 2 has been amended, thus claims 1-12 are currently pending in this application.

Summary of the Office Action

The Office Action dated January 5, 2006, included the following rejections, objections, and comments:

1. Claims 1-8 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 9-31 of co-pending application number 10/424,120.
2. Claims 1-8 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-12 of U.S. Patent Number 6,720,539.
3. Claims 1-12 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-7 of U.S. Patent Number 6,497,951.
4. Claims 1-12 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-8 of U.S. Patent Number 6,855,421.
5. Claims 1-12 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-12 of U.S. Patent Number 6,680,117.
6. Claims 1-12 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 1 of co-pending application number 10/299,154.
7. Claims 1-12 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 9-18 and 22-25 of co-pending application number 10/423,212.
8. Claims 1-12 were rejected under 35 USC § 103(a) as being unpatentable over U.S. 6,373,034 (Rock et al.) in view of U.S. 4,061,827 (Gould).

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In response to these rejections, objections, and comments, and in view of the above Amendments, Applicant provides the following Remarks:

1. Provisional Rejection of Claims 1-8 Over Co-Pending Application Number 10/424,120.

Claims 9-12 were provisionally rejected under the judicially created doctrine of obvious-type double patenting as being unpatentable over claims 9-31 of copending application number 10/424,120. In view of the provisional nature of the rejection, Applicant respectfully submits that it is premature to submit a Terminal Disclaimer. However, when all other issues have been resolved, Applicant will submit the appropriate Terminal Disclaimers.

2. Provisional Rejection of Claims 1-8 as an Obvious-Type Patenting Over U.S. 6,720,539.

Claims 9-12 were provisionally rejected under the judicially created doctrine of obvious-type double patenting as being unpatentable over claims 1-12 of U.S. Patent Number 6,720,539. In view of the provisional nature of the rejection, Applicant respectfully submits that it is premature to submit a Terminal Disclaimer. However, when all other issues have been resolved, Applicant will submit the appropriate Terminal Disclaimers.

3. Provisional Rejection of Claims 1-12 as an Obvious-Type Patenting Over U.S. Patent Number 6,497,951.

Claims 1-12 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-7 of U.S. Patent Number 6,497,951. In view of the provisional nature of the rejection, Applicant respectfully submits that it is premature to submit a Terminal Disclaimer. However, when all other issues have been resolved, Applicant will submit the appropriate Terminal Disclaimers.

4. Provisional Rejection of Claims 1-12 as an Obvious-Type Patenting Over U.S. Patent Number 6,855,421.

Claims 1-12 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-8 of U.S. Patent Number 6,855,421. In view of the provisional nature of the rejection, Applicant respectfully

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submits that it is premature to submit a Terminal Disclaimer. However, when all other issues have been resolved, Applicant will submit the appropriate Terminal Disclaimers.

5. *Provisional Rejection of Claims 1-12 as an Obvious-Type Patenting Over U.S. Patent Number 6,680,117.*

Claims 1-12 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-12 of U.S. Patent Number 6,680,117. In view of the provisional nature of the rejection, Applicant respectfully submits that it is premature to submit a Terminal Disclaimer. However, when all other issues have been resolved, Applicant will submit the appropriate Terminal Disclaimers.

6. *Provisional Rejection of Claims 1-8 Over Co-Pending Application Number 10/299,154.*

Claims 1-12 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 1 of co-pending application number 10/299,154. In view of the provisional nature of the rejection, Applicant respectfully submits that it is premature to submit a Terminal Disclaimer. However, when all other issues have been resolved, Applicant will submit the appropriate Terminal Disclaimers.

7. *Provisional Rejection of Claims 1-8 Over Co-Pending Application Number 10/423,212.*

Claims 1-12 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 9-18 and 22-25 of co-pending application number 10/423,212. In view of the provisional nature of the rejection, Applicant respectfully submits that it is premature to submit a Terminal Disclaimer. However, when all other issues have been resolved, Applicant will submit the appropriate Terminal Disclaimers.

8. *Claims 1-8 were rejected under 35 USC § 103(a) as being unpatentable over U.S 6,373,034 (Rock et al.) in view of U.S. 4,061,827 (Gould).*

Claims 1-12 were rejected as being unpatentable over Rock et al, in view of Gould. Rock et al. describes a core made of insulating material, such as a polyester yarn about which extends an electrical conductive element wrapped helically about the core and an outer covering of insulating material. (Col 6, lines 6-16). Applicants respectfully disagree with Office Action's conclusion that the electrical conductive

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element wrapped helically about the core forms a sheath. Rock et al. refers to the outer coating as a sheath (Col 6, lines 37-38) but neither the description nor the drawings suggest that the conductive wires of Rock et al. form a sheath.

The Office Action states that it would have been obvious to one of ordinary skill in the art to substitute the conductive yarn disclosed by Gould for the conductive wires wrapped around the insulating core of the heating member taught by Rock et al. since a PTC conductive yarn does not require a controller and the total amount of heat which is given off by the yarn is controlled by the materials and composition of the yarn itself to avoid any potential danger such as burns or fires that can be caused if the material gets too hot. The Appellants respectfully disagree with this conclusion. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Rock et al. describes the completed circuits, for example, in Col 9, lines 5-28. Rock et al. does not teach the necessity or desirability of a controller to control the temperature given off. The only teaching, suggestion, or motive for such modifications comes from the Applicant's own disclosure. For these reasons, the Applicants respectfully submit that the claimed invention is not obvious over Rock et al. in view of Gould.

Even if Rock et al. and Gould were combined they would still not teach all of the claim limitations. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). If the PTC yarns of Gould were used in place of the conductive wires of Rock et al., the result would be a nonconductive core yarn with PTC yarns wrapped helically around the nonconductive core. This is not equivalent to the Appellants core/sheath PTC yarn with the core yarn comprises nonconductive multifilaments or staple fibers and being extruded or coated by the sheath of a positive temperature coefficient of resistance (PTCR) material.

The Office Action states that Gould fails to teach having a nonconductive core yarn comprising multifilaments or staple fibers. The addition of the Rock et al. reference does not cure this deficiency.

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**Conclusion**

The Applicants having addressed all of the rejections, objections, and comments in the latest Office Action, respectfully requests reconsideration and allowance of the pending claims in view of the above Amendments and Remarks. Applicant respectfully submits that the amendments submitted herewith do not add new matter to the application. In the event that the Examiner believes that the claims would be allowable with minor changes, the Examiner is invited to telephone the undersigned to discuss an Examiner's Amendment.

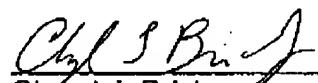
**Fee Authorization:** In the event that there are additional fees associated with the submission of these papers, Applicant hereby authorizes the Commissioner to withdraw those fees from our Deposit Account No. 04-0500.

**Extension of Time:** In the event that additional time is required to have the papers submitted herewith for the above referenced application to be considered timely, Applicant hereby petitions for any additional time required to make these papers timely and authorization is hereby granted to withdraw any additional fees necessary for this additional time from our Deposit Account No. 04-0500.

June 14, 2006

Respectfully submitted,

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